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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/857,022 | 05/31/2001 | Tetsuya Ikeda | L928901144 | 7647 |

7590

05/05/2004

James E Ledbetter
Stevens Davis Miller & Mosher
1615 L Street N W Suite 850
Washington, DC 20036

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| EXAMINER |
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NAMAZI, MEHDI

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| ART UNIT | PAPER NUMBER |
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2188

DATE MAILED: 05/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/857,022

Applicant(s)

IKEDA ET AL.

Examiner

Mehdi Namazi

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 13 is/are allowed.
6) ☒ Claim(s) 1-3 and 6-12 is/are rejected.
7) ☒ Claim(s) 4 and 5 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 31 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4, 5, and 6.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application filed May 31, 2001.

Drawings

2. Figures 1, 2, and 3A-D should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because of the following reasons:

In figure 1 and all figures which refer to the "EXCLUSIVE LOGICAL SUN CALCULATOR" SUN should be corrected to SUM as in page 2, line 20.

Also, in figure 1, output of memory 11 is incorrect according to page 2, line 16.

α^10 should be α^{i0}

In figure 4, "Column Exchange Section 103" conflicts with "column conversion apparatus 103" in specification, page 9, line 4 and 5.

A proposed drawing correction or corrected drawings are required in reply to the office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: page 2, line 22, α^{j0} should be corrected to α^{i0} .

Appropriate correction is required.

Claim Objections

5. Claims 8-10 are objected to because of the following informalities:

As per claim 8, line 6, --:-- should be added after "comprises".

As per claim 9, line 7--said--should be inserted before "soft decision output decoding".

As per claim 10, line 15 "extracts" should be replaced with --extracting--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 6-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Motorola (A Proposal for Turbo Code Interleaving).

As per claims 1, 6, 7, 8, 9, 10, and 11, Motorola teaches an interleave address generation apparatus comprising: interleave address generating means for generating an interleave address pattern of a predetermined size and sequentially outputting interleave addresses; offset address generating means for generating offset addresses; and adding means for adding said offset addresses to said interleave addresses and outputting as interleave

Art Unit: 2188

Addresses (Motorola teaches converting upper bits of interleave addresses and converting lower bits using pseudo noise generator, and use it as a combination).

As per claims 2, 3, and 12, Motorola teaches an interleave address generation method comprising the steps of converting a first variable using a predetermined random pattern; converting a second variable using a predetermined random pattern; and adding a result of multiplying said first variable by a maximum value of said second variable to said second variable **(the n bits and m bits conversions correspond to the particular conversions of the first and second variables, where they correspond to i and j respectively section 2.0).**

Allowable Subject Matter

8. Claim 13 is allowed.
9. Claims 4, and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Namazi whose telephone number is 703-306-2758. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 703-306-2903. The fax phone

Art Unit: 2188

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehdi Namazi
Examiner
Art Unit 2188



April 27, 2004